Using ISO 14001 and EDYS as a Framework for Creating a Sustainable Range Management System

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Overview

- Range Management is a Critical Concern for DoD
- ISO 14001 Provides an Excellent Framework for Developing a Sustainable Range Management System
- EDYS Provides a Predictive Tool for Modeling Range Sustainment

Range Issues

- Infrastructure
- Operations
- Maintenance
- Encroachment
- Environmental Responsibilities
- Outreach
- New Technologies

Range Management Strategy

Requires a Comprehensive Solution That Integrates:

- Training Requirements
- Natural Environment & Stewardship
- Community Economic and Social Interests
- Legislative and Regulatory Framework

Range Sustainment Strategy Elements

- Leadership & Organization
- Legislation & Regulation
- Policy
- Programs
- Outreach

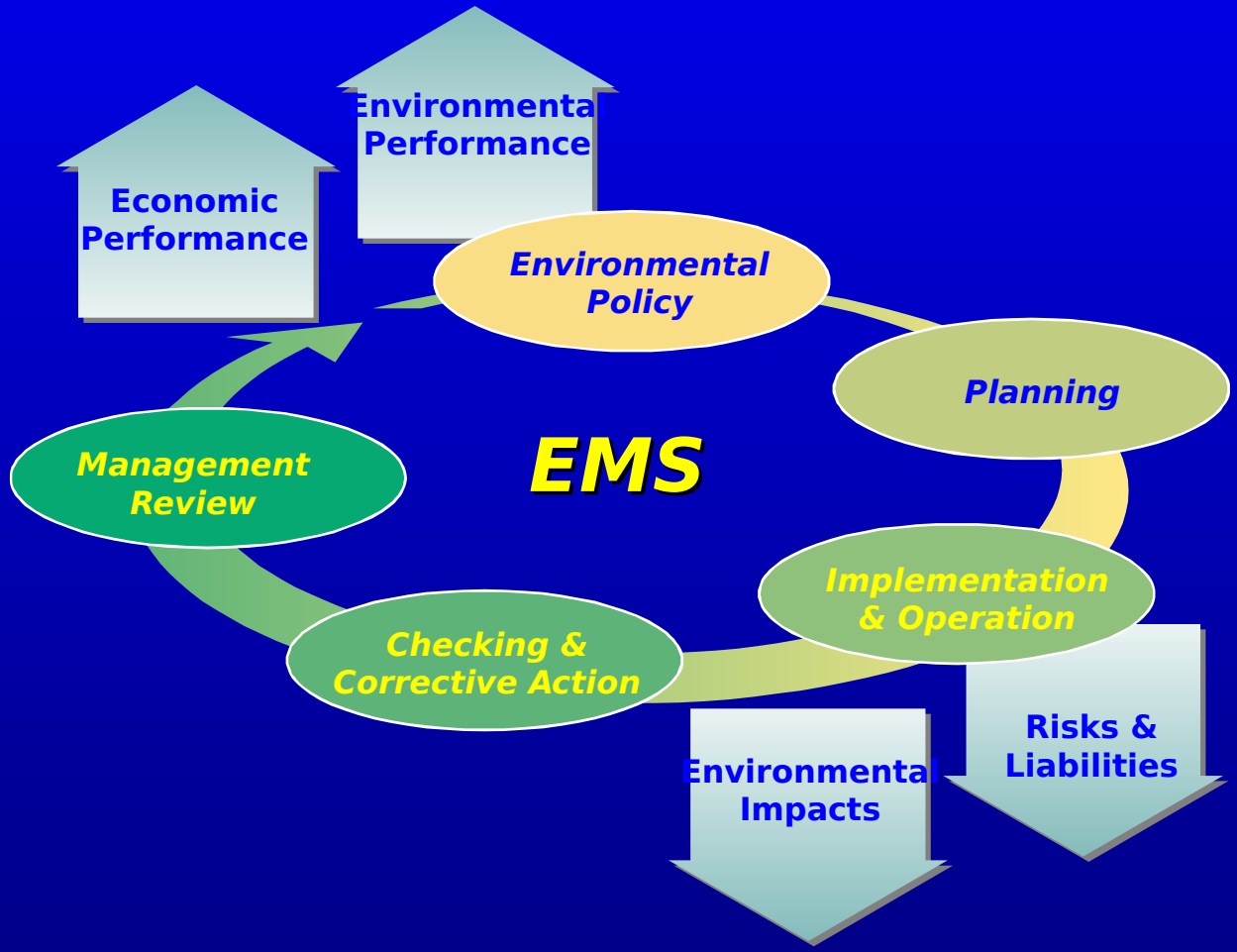
Programmatic Guidance

- Use best practices to minimize off-range community effects (noise, smoke and dust, etc.), mitigate possible off-range migration of munitions constituents and facilitate future range transfer or closure when such action can be reasonably anticipated
- Develop new ranges in such a way as to minimize future encroachment
- Emphasize use of biodegradable inert munitions or green ammunition, where practical and consistent with military need, at all training ranges
- Implement active land management practices that sustain range quality as required for military operations
- Conduct necessary environmental research and development on key range sustainment issues
- Assess potential hazards from off-range migration of munitions constituents

Stakeholder Involvement

- Convey DoD issues and concerns to other Federal Agencies, states, tribes, localities and the public
- Listen to public and government agency concerns about our operational ranges
- Establish partnerships with Federal and State agencies, tribal governments, local community groups and public
  - Maintain partnerships for the long term - collaborate on future planning
- Develop an active, long-term stakeholder involvement program to support range sustainment – build trust and enhance operations, while addressing agency, local government and public needs

What is an EMS?



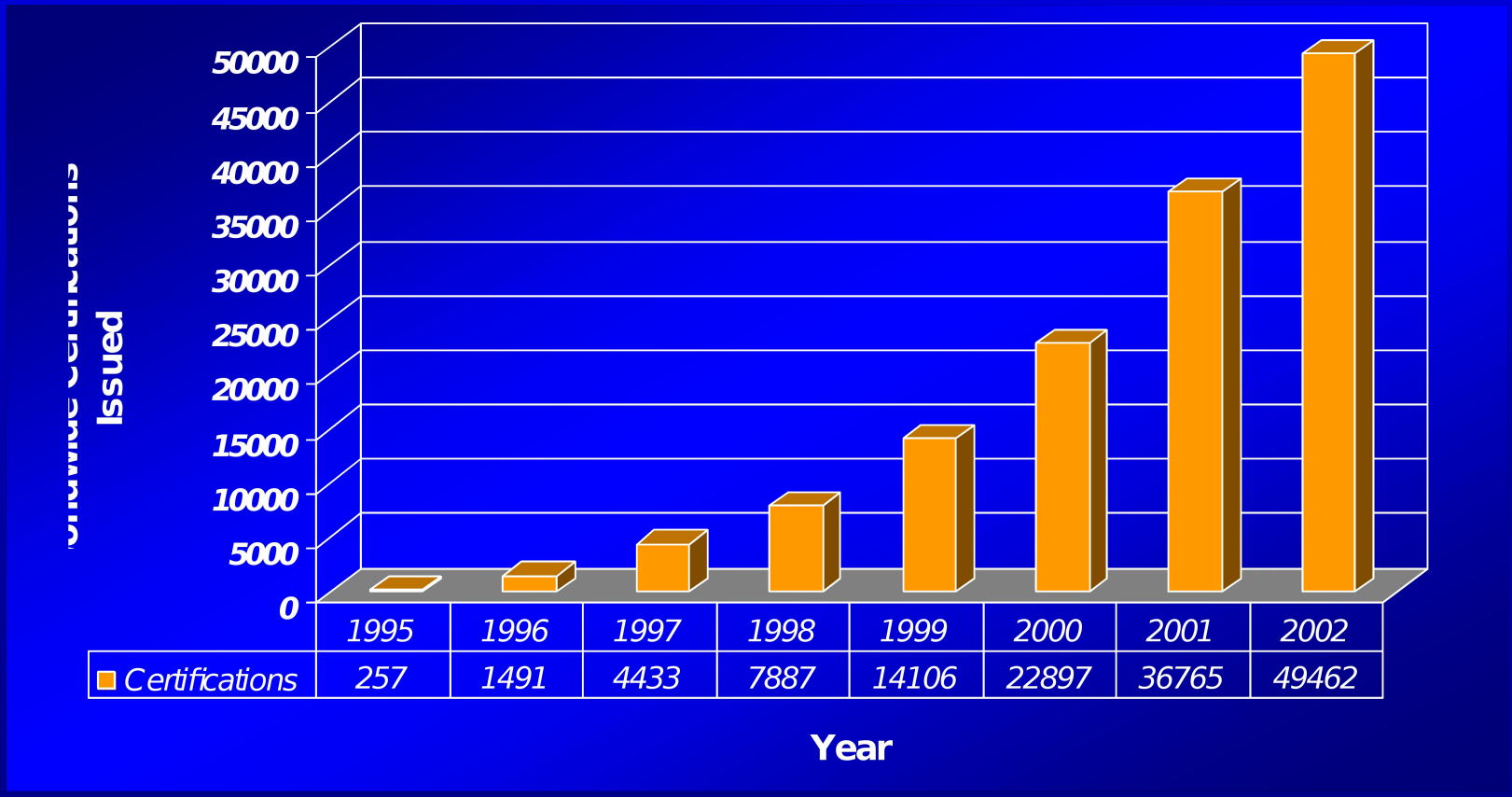
EMS Requirements in DoD

- Executive Order 13148, *Greening the Government through Leadership in Environmental Management*
- *EMS Implementation Criteria and Metrics*, ADUSD(E) Memo 30 Jan 2003
- *DoD EMS*, USD/ATL Memo 5 Apr 2002
- OMB and CEQ letter to SECDEF 1 Apr 2002
- *Army EMS Installation Requirements*, ACSIM Memo 6 Aug 2001
- *Army EMS Action Memorandum*, OASA(I&E) 13 Jul 2001
- *Navy EMS Policy*, CNO Memo 6 Dec 2001
- *Air Force ESOHMS*, SECAF and CSAF Memo 5 Jan 2001

ISO 14001 Elements

- Environmental Policy
- Environmental Aspects
- Legal and Other Requirements
- Objectives & Targets
- Environmental Management Programs
- Structure and Responsibility
- Training: Awareness & Competence
- Communication
- EMS Documentation
- Document Control
- Operational Control
- Emergency Preparedness and Response
- Monitoring and Measurement
- Nonconformance & Corrective and Preventative Action
- Records
- EMS Audit
- Management Review

ISO 14001 Certifications



Application of ISO 14001 to Address Range Management Issues

- Leadership & Organization (Management Review & Structure and Responsibility)
- Legislation & Regulation (Legal & Other Requirements)
- Policy (Environmental Policy)
- Programs (Environmental Management Programs)
- Outreach (Communication)

What's Missing?

- Environmental Aspects
- Objectives & Targets
- Training: Awareness & Competence
- EMS Documentation
- Document Control
- Operational Control
- Emergency Preparedness and Response
- Monitoring and Measurement
- Nonconformance & Corrective and Preventative Action
- Records
- EMS Audit

EDYS

- Ecological Dynamics Simulation
- Predictive tool to assess a wide variety of land and water use and disturbance scenarios
- Takes GIS data as input
- Generates ecosystem data as output

EDYS Modules

- Climatic simulators
- Hydrology
- Soil profile
- Nutrient and contaminant cycles
- Plant community dynamics
- Herbivory
- Animal dynamics
- Management activities
- Natural/anthropogenic disturbances

EDYS and ISO 14001

- Environmental Aspects
- Objectives & Targets
- Emergency Preparedness and Response
- Monitoring and Measurement

Summary

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